

## Isolate the Variable on Single Step Equations

Questions to asked yourself:

1. What is happening to the variable, x? (A number is added or subtracted.)
2. What is the number being added or subtracted?

$$x - 7 = -11$$

Questions to asked yourself:

1. What is happening to the variable, x? (**A number is subtracted.**)
2. What is the **number** being subtracted? **7**

Isolate the variable by

- Performed the **Additive Inverse of the number 7**, which is -7 (negative 7)

$$x - 7 = -11 \quad \text{Original Equation}$$

$$\begin{array}{r} + \quad +7 \quad +7 \\ \hline \end{array} \quad \text{Additive Inverse to both sides of the equal sign}$$

$$x + 0 = -4 \quad \text{Perform the Addition (+)}$$

$$x = -4 \quad \text{Simplify}$$

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Questions to asked yourself:

$$x + 5 = -11$$

1. What is happening to the variable, x? (**A number is added.**)
2. What is the **number** being subtracted? **5**

$$x + 5 = -11 \quad \text{Original Equation}$$

$$\begin{array}{r} + \quad -5 \quad -5 \\ \hline \end{array} \quad \text{Additive Inverse to both sides of the equal sign}$$

$$x + 0 = -16 \quad \text{Perform the Addition (+)}$$

$$x = -16 \quad \text{Simplify}$$